

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF TEXAS

United States District Court
Southern District of Texas

Heerema Engineering Services B.V.,

Plaintiff,

versus

Transocean Inc., et al.,

Defendants.

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Civil Action H-08-1200

ENTERED

February 04, 2016

David J. Bradley, Clerk

Opinion on Partial Summary Judgment

I. Introduction.

Heerema Engineering Services B.V. claims that its patent is infringed by Transocean, Inc., on as many as twenty-three rigs. Transocean moves for summary judgment for these rigs: six *Discoverer*, two *Deepwater*, the *Cajun Express*, and three *Development*. Heerema opposes a summary judgment on the *Discoverer*, *Deepwater*, and *Cajun Express* rigs and requests discovery on the *Development* rigs.

Heerema will take nothing for claims against the *Discoverer*, *Deepwater*, and *Cajun Express* rigs. The claims against the other rigs survive.

2. Background.

On an oil well, a string of drill pipe connects the surface machinery to the drill bit. The drill pipe arrives at the rig in short segments, each about 32-feet long. One segment of drill pipe is a joint; two or more segments (up to the height of the derrick) connected together are a stand; multiple connected stands form the drill string.

The surface machinery is extensive. It includes a top drive, rotary table, hoists, mud pumps, shale shakers, pipe racks, mechanical roughnecks, cables, hand tools, generators, and other things. The surface machinery, drill string, and drill bit are supported under a drilling derrick. This derrick is a metal frame above the well bore. The top drive turns the drill string; the drill string turns the bit; the bit digs a hole into the ground.

As the bit digs the hole, the drill string descends, and joints of pipe are screwed to the top of the drill string. Assembling drill string by screwing individual joints onto the drill string is time consuming. The process is more efficient if each stand is as long as practical and assembled outside of the derrick. The height of the derrick, however, limits the length of the stands that can be assembled outside of the derrick. As offshore drilling developed, assembling longer stands became possible because derricks used for drilling offshore may be significantly taller than derricks used for onshore.

3. *Heerema's Patent.*

Heerema Engineering Services holds a patent on the assembly of stands of drill string at a place other than the drilling derrick(s).¹ Specifically, the patent covers a method for “preassembling one or more parts of the . . . drill string on the drilling rig at one or more pre-assembly points which are in a position which is different from the position of the at least one drilling derrick and conveying to the drilling derrick each part of the . . . drill string from the pre-assembly points.”²

4. *Discoverer and Deepwater Rigs.*

These rigs have large derricks with the capacity to drill a well and simultaneously assemble stands of drill string. Each derrick contains two of everything needed to drill a well, enabling it to drill two holes side by side. Transocean does not ordinarily use this derrick to drill two wells at the same time. Rather, one half of the derrick floor is used to drill while the other machinery is used to assemble stands of drill string. Heerema says that this method of drill string assembly is covered by its patent. It is not.

Heerema's patent covers drill string assembly that occurs outside of the drilling derrick. Building a larger drilling derrick and adding machinery inside of it does not create a separate derrick. Remodeling a two-bedroom house to add an extra bedroom does not create a separate house, and parents do not brag to their friends that the child in the third bedroom has moved out of the house. An assembly point located within the drilling derrick is not at a “position” other than the drilling derrick, no matter how large the derrick is built.

¹The patent covers the assembly of casing string and riser string as well, but this opinion will refer to all three as drill string.

² Patent number 5,647,443

Even if Heerema is correct that the rigs house two separate drilling derricks inside a larger derrick, Transocean is not assembling drill string in “a position which is different from the position of the at least one drilling derrick.” The words “at least one drilling derrick” contemplate one, two, or more drilling derricks. Here, according to Heerema, there are two derricks. Each of the two derricks can drill a well; they are drilling derricks. Drill string is assembled in one of them. Assembly does not occur in a position “different from the position of the [two] drilling derrick[s].” It occurs in the second. Assembly in one of the drilling derricks, whether it is the derrick currently drilling the well or not, is not covered by the patent.

5. *The Cajun Express.*

The *Cajun Express* uses a derrick that supports three areas of simultaneous activity. The derrick has a drill station and two stations on either side of the drill station where stands are assembled. A track runs above the drill station that brings the stands to the drill station where each stand is attached to the top of the drill string.

Heerema’s patent covers the assembly of drill string at a different position than the drilling derrick. Here, Transocean has achieved greater efficiency by assembling stands on its drilling derrick – decreasing the distance the parts move before being attached to the drill string.

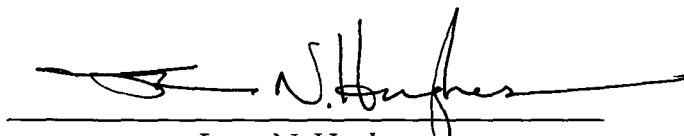
Heerema draws a box that it calls the drilling derrick. The box includes the drilling station and all of the other attached machinery, except drill string assembly areas. The drilling derrick may become both larger and more functional when additional tools are built in it. Something built on a drilling derrick is not outside the derrick merely because it is collateral to the operation of the drill bit.

Transocean built tools into its drilling derricks that assemble and stack stands vertically next to the drill station where they are then lowered and screwed onto the drill string. Roughnecks who do not use the innovations of Transocean or Heerema are limited only in that they must screw on shorter parts of drill string. The assembly of stands is collateral to the operation of the drill bit; that does not mean that the assembly cannot be built within the derrick. Transocean assembles stands within the derrick; it does not infringe Heerema’s patent.

6. *Conclusion.*

Transocean's *Discoverer*, *Deepwater*, and *Cajun Express* rigs do not infringe Heerema's patent. Heerema will take nothing from its claims on those rigs. The claims against the other rigs survive.

Signed on February 4, 2016, at Houston, Texas.



Lynn N. Hughes
United States District Judge